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## ABSTRACT OF THE INVENTION

The invention provides a method for generating an enhanced image, the method including the steps of: (a) receiving a matrix of pixels representative of an image; (b) generating a gradient image representative of a difference between values of adjacent pixels; (c) calculating a center of mass for each pixel of the gradient image in response to gradient intensity values and location values of neighboring pixels; and (d) generating an enhanced image by modifying intensity values of pixels of the matrix of pixels that are located in a vicinity of local centers of mass in response to intensity values of pixels that are further displaced from the local centers of mass.

The invention provides a method for generating an enhanced image, the method including the steps of: (a) receiving a matrix of pixels representative of an image; (b) estimating at least one edge of the image; and (c) generating an enhanced image by modifying intensity values of pixels of the matrix of pixels that are located in a vicinity of the at least one estimated edge in response to intensity values of pixels that are further displaced from the at least one edge.